

# Nuclear Facility Deactivation and Decommissioning (D&D), Remainder of Hanford (RL-0040)

M. B. Lackey, Vice President of Deactivation and Decommissioning Project/(509) 373-9519

R. G. Slocum, Vice President of Closure Services and Infrastructure/(509) 372-1843

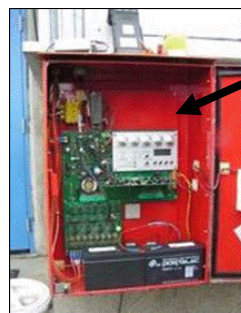


200-W-42 Pipeline  
Aerial view

200-W-42 Pipeline  
Ground work

## *Completed Radio Fire Alarm Reporting (RFAR) upgrades*

RFAR box  
with old transceiver



RFAR box  
with transceiver removed

RFAR box  
with new transceiver



## Overview

This section addresses Project Baseline Summary (PBS) RL-0040, *Nuclear Facility Deactivation and Decommissioning (D&D), Remainder of Hanford*. There are two major components to this work scope:

- Central Plateau Remediation (CPR) (M. B. Lackey), and
- Reliability Projects (R. G. Slocum).

NOTE: Unless otherwise noted, all information contained herein is as of the end of July 2006.

## Notable Accomplishments

### PBS RL-0040, Nuclear Facility D&D, Remainder of Hanford

#### Central Plateau Remediation Projects:

##### U Plant Waste Sites Remediation

- Removal of 200-W-42 vitrified clay pipeline (VCP) and other interferences
  - Completed excavation of 200-W-42 pipe; 1168 cans (~18 ton each) transported to the Environmental Restoration Disposal Facility (ERDF). Approximately 63 percent of these cans are associated with lateral spread of contaminants for 200-W-42 VCP.
  - Approval received to backfill trench between U-8 and U-12.

##### Closure Projects

- Completed Data Quality Objective (DQO) workshop with RL and regulators for 200-IS-1 Tanks/Boxes/Pits/Lines Group.
- Completed additional geophysical surveys and initial passive soil vapor sampling for waste sites in 200-SW-2 Radioactive Landfills and Dumps Group Operable Unit.
- Completed demonstration of gator-mounted detector for use in survey of BC Control Area.

#### Reliability Projects:

- Project L-613, "Re-Route Telecom Backbone Around 300 Area"
  - Completed definitive design July 2006.
  - Awarded contract July 21, 2006.
- Radio Fire Alarm Reporting (RFAR) Replacement Project
  - Completed RFAR upgrades in the 300, 400, 600 South and 100 Areas, and seventy percent of 200 Area upgrades.

## FY 2006 Funds vs. Spend Forecast (\$M)

		Projected FY 2006 Funding	FY 2006 Fiscal Year Spend Forecast	Variance
RL-0040	Nuclear Facility D&D, Remainder of Hanford	\$ 66.5	\$ 56.9	\$ 9.6
Total		\$ 66.5	\$ 56.9	\$ 9.6

## FY 2006 Schedule/Cost Performance (\$M)

	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance \$	Schedule Variance %	Cost Variance \$	Cost Variance %	Budget At Completion
RL-0040 Nuclear Facility D&D, Remainder of Hanford	\$42.2	\$50.4	\$43.6	\$8.2	19.5%	\$6.8	13.5%	\$55.6
<b>Total</b>	<b>\$42.2</b>	<b>\$50.4</b>	<b>\$43.6</b>	<b>\$8.2</b>	<b>19.5%</b>	<b>\$6.8</b>	<b>13.5%</b>	<b>\$55.6</b>

Numbers are rounded to the nearest \$0.1M.

### Schedule Performance (+\$8.2M/+19.5%):

The favorable schedule variance (SV) for Central Plateau Remediation Project (CPR) (+\$1.8M) is primarily due to close out of post contract period no action waste sites (+\$3.0M), completion of FY 2005 carryover work scope: PUREX NESHAPs, B Plant filter change out, Haul Road Construction, and Ecological Sample Analysis (+\$1.5M), and progress in demolition of post-contract industrial facilities (+\$0.3M). This is offset by delays in DQO for Model Groups (-\$0.2M), delays in the DQO and Phase II surface investigation for 200-SW-1/2, Non-Radioactive/Radioactive Landfills and Dump Group (-\$0.4M), delays in the DQO and follow-on characterization for 200-IS-1, Tanks/Boxes/Pits/Lines Group (-\$1.4M); and delays at the 200-MW-1, Miscellaneous Waste Group A-4 replacement borehole (-\$0.3M), Ecological Sampling (-\$0.4M) and other miscellaneous waste sites (-\$0.2M).

**Recovery Plan:** Central Plateau Remediation work scope is projected to carry over into FY 2007 for the Ecological Sampling activities, the 200-MW-1, 200-SW-1, and 200-IS-1 field work. The model groups DQO will be completed by the end of FY 2006.

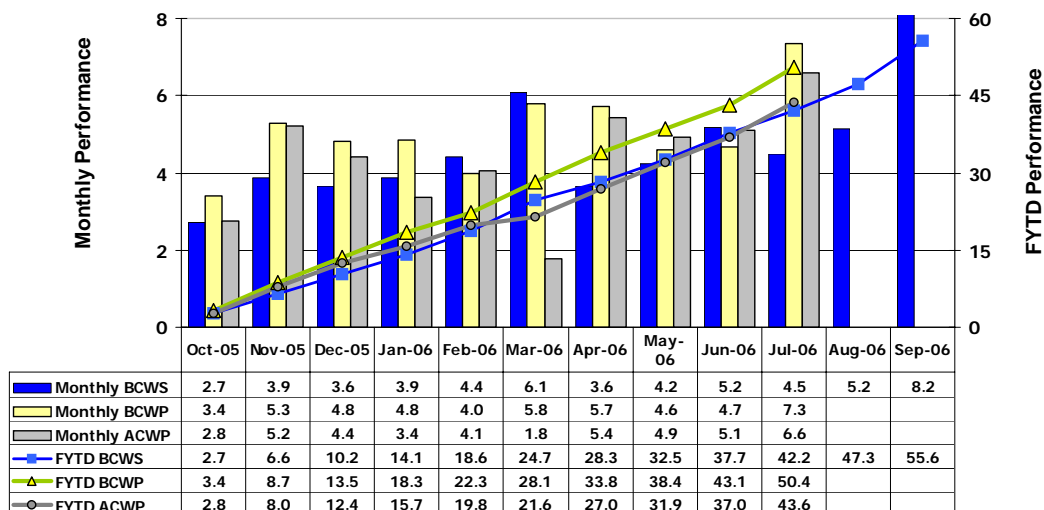
The favorable SV for Reliability Projects (+\$6.4M) is primarily due to progress on prior-year carryover work scope: completed Project L-325, "A-8 Substation," (+\$4.8M), Project L-334, "Minimize Potential Environmental Impact from Export Water System Ruptures," (+\$0.7M), "Hanford Site Emergency Alerting System" (+\$0.5M), L-573, "Infrastructure Footprint Reduction & Consolidation" (+\$0.1M), and RFAR Replacement project (+\$0.3).

### Cost Performance (+6.8M/+13.5%):

The favorable cost variance (CV) for CPR (+\$7.2M) is primarily the result of closing out post-contract period no action waste sites at no cost (+\$3.0M), efficiencies in the haul road construction (+\$0.6M), efficiencies in 200-SW-1/2, Non-Radioactive/Radioactive Landfills and Dump Group field work (\$+0.5), Surveillance and Maintenance (+\$0.2M), Project Management and Support (+\$0.3M), and a variance distribution for PBS RL-40 (+\$3.4M). This is offset by increased ERDF and labor costs for 200-W-42 VCP pipeline removal due to contamination spread (-\$1.0M).

The unfavorable CV for Reliability Projects (-\$0.5M) is primarily due to L-324, "Thermal Imaging Photography and Internal Pipeline Video Inspection of Export Water" line, increased cost required during Department of Health project report preparation, associated delays, and additional cost to correct field conditions (-\$0.2), L-613, "Reroute Fiber Optic Backbone Around 300 Area," fixed priced contract accrued at full value in error (-\$0.4M). These cost overruns have been offset by Project L-573 "Infrastructure Reduction and Consolidation," increased steel prices (-\$1.0), and by L-325, "A-8 Substation," project completed under cost (+\$1.0), and Real Estate & Site Planning variance due to rounding (+\$0.1).

### Performance Analysis FYTD and Monthly (\$M)



### Milestone Achievement

PBS	MSN	Title	Type	Due Date	Actual Date	Forecast Date	Status / Comments
RL-0040	WMG-06-001 M-091-40L-008	M-91-40L.2.D Submit Quarterly Burial Ground Vent and substrate Sample	HQ	12/01/05	11/08/05		Completed ahead of schedule
RL-0040	TRP-04-324	Issue Action Memorandum for U Plant Ancillary Facilities	RL	12/31/05	01/23/04		Completed ahead of schedule
RL-0040	TRP-04-323	Issue Record-of-Decision for Canyon Disposition Initiative	RL	12/31/05	10/03/06		Completed ahead of schedule
RL-0040	TRP-03-260 M-015-46A	200 Area Chemical Lab Waste OUs Remedial Investigation Report.	HQ	02/28/06	02/28/06		Completed on schedule
RL-0040	WMG-06-005 M-091-40L-009	M-91-40L.3.A Submit Quarterly Burial Ground Vent and substrate Sample	HQ	03/15/06	02/09/06		Completed ahead of schedule
RL-0040	TRP-03-248 M-020-39	Submit 216 S-10 Pond and Ditch Closure Plan to Ecology	HQ	03/31/06	03/30/06		Completed ahead of schedule
RL-0040	TRP-03-245 M-015-39C	Submit 200-CS-1 Chemical Sewer Group FS and Submit PP/Proposed RCRA Permit Mod	HQ	03/31/06	03/30/06		Completed ahead of schedule
RL-0040	TRP-04-320	Demolish Ten U Plant Ancillary Facility Structures	RL	03/31/06	09/07/05		Completed ahead of schedule
RL-0040	TRP-04-321	Demolish 10 B Plant Structures	RL	03/31/06	09/14/04		Completed ahead of schedule
RL-0040	TRP-03-257 M-020-33	Submit Closure/Post Closure Plans for 216-A-10 Crib, Etc.	HQ	04/30/06	04/27/06		Completed ahead of schedule
RL-0040	TRP-03-263 M-015-44A	200-MW-1 OU Remedial Investigation Report	HQ	04/30/06	04/28/06		Completed ahead of schedule

## Milestone Achievement, continued

MSN	Title	Type	Due Date	Actual Date	Forecast Date	Status / Comments
TRP-03-254 M-015-43C	Submit 200-PW-2 OU FS & Proposed Plan/Proposed RCRA Permit Mod	HQ	05/31/06	05/31/06		Completed on schedule
WMG-06-006 M-091-40L-010	M-91-40L.3.B Submit Quarterly Burial Ground Vent and substrate Sample	HQ	06/15/06	05/31/06		Completed ahead of schedule
WMG-06-007 M-091-40L-011	M-91-40L.3.C Submit Quarterly Burial Ground Vent and substrate Sample	HQ	09/15/06			On schedule
TRP-04-322	Demolish 12 additional B Plant Structures	RL	09/30/06	09/14/04		Completed ahead of schedule
WMG-05-010 M-091-40J	M-91-40J Update 218-W-3A SAP	HQ	45 day before field work begins			On schedule
WMG-05-009 M-091-40I	M-91-40I Update 218-W-4B SAP	HQ	45 day before field work begins			On schedule
D&D Project Performance Objectives	Demolition of five facilities (2707E, 2713E, 2715E, 2719E, & 2722E) to slab on grade.	RL	09/30/06			On schedule
D&D Project Performance Objectives	Remediation of two 200-UW-1 Operable Unit waste sites (200W-42 vitrified clay pipeline/UPR 200-W-163) in the U-Plant Regional Closure Area as identified in the waste site proposed plan	RL	09/30/06			On schedule
D&D Project Performance Objectives	Data Quality Objectives (DQO) and respective Sampling and Analysis Plans (SAPs) for model groups 2-7 that integrate groundwater and source unit needs.	RL	09/30/06			On schedule
D&D Project Performance Objectives	Slant borehole at 216-Z-9 Trench and delivery of the 200-PW-1 Draft A, Remedial Investigation Report to RL	RL	09/30/06			On schedule
TRP-06-001 M-015-45A	Submit 200-PW-1 OU Remedial Investigation Report	HQ	10/31/06		10/15/06	Forecast ahead of schedule
TRP-03-266 M-015-46-B	200 Area Chemical Laboratory Waste Ous Feasibility Study	HQ	11/30/06			On schedule
WMG-07-001 M-091-40L-012	M-91-40L.3.B Submit Quarterly Burial Ground Vent and substrate Sample	HQ	12/15/06			On schedule